

## REMARKS

Original claims 8-11 and newly added claims 24-28 are pending. The title has been amended as requested by the Examiner.

### Rejections under 35 U.S.C. § 102

Claims 8 and 9 stand rejected under 35 U.S.C. § 102(b) in light of U.S. Patent Pub. No. 2001/0012671 to Hoshino et al. ("Hoshino"). As the PTO provides in MPEP § 2131, "[t]o anticipate a claim, the reference must teach every element of the claim...." (emphasis added). Therefore, each reference applied under 35 U.S.C. § 102 must disclose all of the elements of the claims to sustain the rejection. Accordingly, Applicant respectfully traverses these rejections on the following grounds.

Claim 8 recites, in part, a channel region formed in the substrate between the first and third doping regions by turning on the high-voltage MOS transistor to pass current between the source and drain regions, where a resistance per unit length of the channel region is substantially equal to a resistance per unit length of the first doping region.

Applicant submits that Hoshino fails to teach or suggest at least the above-recited element of claim 8. More specifically, to anticipate the requirement that "a resistance per unit length of the channel region is substantially equal to a resistance per unit length of the first doping region," the Office action relies on Figs. 32 and 36 of Hoshino and states: "Note that the two slopes are substantially equal." Applicant respectfully disagrees and directs the Examiner's attention to the difference in the scales of the two graphs. If the graphs are considered without reference to their scales, one may form the incorrect impression that the two slopes are substantially equal. However, when the different scales are taken into account, a brief calculation of the slope in Fig. 32 results in a slope of approximately 2.75, while a calculation of the slope in Fig. 36 results in a slope of approximately 2.1. Applicant respectfully submits that a difference in slope of approximately 31% is not "substantially equal" as required by claim 8. Accordingly, the cited figures and text of Hoshino fail to teach or suggest each element of claim 8 as required by MPEP §

2131, and claim 8 is allowable over the cited art for at least this reason. Claims 9-11 depend from and further limit claim 8 and are therefore also allowable for at least the same reason as claim 8.

New claims 24-28

New independent claims 24 and 28 both recite, in part, a source region formed in a substrate on the opposite side of the gate structure from the first drain region, wherein a channel region formed in the substrate between the first drain region and source region has a resistance per unit length that is substantially equal to a resistance per unit length of the first drain region.

As described above, the cited figures and text of Hoshino fail to teach or suggest the above recited element of claims 24 and 28 as required by MPEP § 2131, and claims 24 and 28 are allowable over the cited art for at least this reason. Claims 25-27 depend from and further limit claim 24 and are therefore also allowable for at least the same reason as claim 24.

Conclusion

It is respectfully submitted that all the claims in the application are in condition for allowance. Should the Examiner deem that any further amendment is needed to place this application in condition for allowance, the Examiner is invited to telephone the undersigned at the below listed telephone number.

Respectfully submitted,

*Timothy F. Bliss*

Timothy F. Bliss  
Registration No. 50,925

Dated: August 16, 2005  
HAYNES AND BOONE, LLP  
901 Main Street, Suite 3100  
Dallas, Texas 75202-3789  
Telephone: 972 739-8638  
Facsimile: 214 200-0853  
File: 24061.79/TSMC2003-0322  
R-112540

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 16, 2005.

*Gayle Conner*  
Gayle Conner